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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,792	09/27/2005	Markus Schmid	12810-00129-US1	5650

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EXAMINER	
THEODORE, MAGALI P	

ART UNIT	PAPER NUMBER
1791	

MAIL DATE	DELIVERY MODE
11/23/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/551,792	SCHMID ET AL.	
	Examiner	Art Unit	
	Magali P. Théodore	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 September 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/8/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 8, 2009 has been entered.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

Claims 1-2, 5, 11-14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Scheuermann** (DE 1034358) in view of Zimmerman et al. (US 5,013,813), henceforth **Zimmerman**. All references to Scheuermann are to the translation provided.

Regarding **claim 1**, Scheuermann teaches a method of making powdered condensed resin (pulvurent condensation products, title), by carrying out a condensation reaction between at least one crosslinkable starting material (urea, page 3 line 4) and at least one aldehyde (formaldehyde, page 3 line 4). Since the reagents are distinct in the solution while the solution is sprayed (solution of urea and aqueous 40 % formaldehyde, page 3 line 4), the condensation reaction takes place during the spraying. While Scheuermann does not mention a reactor in this passage, he does

describe the use of drying towers for spraying (page 1 line 5); therefore it would have been obvious to one of ordinary skill in the art to carry out this reaction in a spray reactor such as a drying tower.

Scheuermann does not teach spraying the crosslinkable material and the aldehyde into each other. However, Zimmerman teaches mixing two reagents (components (A) and (B), 8:36-37) by spraying (impacting or impinging) them against each other from separate sources in order to mix them effectively (intimately, 9:37-42). Though Zimmerman is not making particles, this step solves a problem that is equally relevant in Scheuermann: the need to effectively mix reagents that will react to form a product. Therefore, it would have been obvious to one of ordinary skill in the art to spray Scheuermann's reagents into each other because Zimmerman teaches spraying reagents into each other to effect intimate mixing thereof.

Regarding **claim 2**, Scheuermann teaches that the temperature inside the spray tower and, therefore, the reaction temperature, is between 90 °C and 120 °C (page 4 last line – page 5 first line), a range which lies within the claimed range.

Regarding **claim 5**, Scheuermann teaches that the reaction takes place in the presence of air (page 5 line 2), a dry gas.

Regarding **claim 11**, Scheuermann teaches that the starting material is urea (page 3 line 4).

Regarding **claim 12**, Scheuermann teaches that the aldehyde is formaldehyde (page 3 line 4).

Regarding **claim 13**, Scheuermann teaches a condensate (condensed product, title) and, based on the reasoning provided in the rejection of claim 1, it would have been obvious of one of ordinary skill in the art to modify Scheuermann's method based on Zimmerman's teaching. The disclosed product of these combined references and the instantly claimed product appear to be essentially the same, comprised of the same components, and used in the same manner. In the event any differences can be shown for the product of the product-by-process claim 13 as opposed to the product taught by the prior art, such differences would have been obvious to one of ordinary skill in the art as a routine modification of the product in the absence of a showing of unexpected results. See *In re Thorpe*, 227 USPQ 964 (Fed. Cir. 1985). Also, when the examiner has found a substantially similar product as in the applied prior art, the burden of proof is shifted to applicant to establish that their product is patentably distinct and not the examiner to show the same process of making. *In re Brown*, 173 USPQ 685 and *In re Fessmann*, 180 USPQ 324.

Regarding **claim 14**, Scheuermann teaches a condensate (condensed product, title) and, based on the reasoning provided in the rejection of claim 1, it would have been obvious of one of ordinary skill in the art to modify Scheuermann's method based on Zimmerman's teaching. The examiner recognizes that the claimed moisture content is not positively stated by the reference. However, since the combined references disclose all of the claimed ingredients, process steps and process conditions, the claimed moisture content would inherently be achieved by carrying out the disclosed process. If it is Applicant's position that this would not be the case: (1) evidence would

need to be presented to support applicants' position; and (2) it would be the examiner's position that the application contains inadequate disclosure in that there is no teaching as to how to obtain the claimed properties and effects by carrying out only these steps.

In the event any differences can be shown for the product of the product-by-process claim 14 as opposed to the product taught by the prior art, such differences would have been obvious to one of ordinary skill in the art as a routine modification of the product in the absence of a showing of unexpected results. See *In re Thorpe*, 227 USPQ 964 (Fed. Cir. 1985). Also, when the examiner has found a substantially similar product as in the applied prior art, the burden of proof is shifted to applicant to establish that their product is patentably distinct and not the examiner to show the same process of making. *In re Brown*, 173 USPQ 685 and *In re Fessmann*, 180 USPQ 324.

Regarding **claim 18**, Scheuermann teaches that the reaction takes place in the presence of air (page 5 line 2), a dry gas.

Claims 3, 15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Scheuermann** in view of **Zimmerman** as applied to claims 1-2 above and further in view of Thiesse et al. (US 5,807,584), henceforth **Thiesse**.

Regarding **claim 3**, Scheuermann does not teach a nozzle size. However, Thiesse establishes nozzle size as a result effective parameter by teaching that the nozzle diameter is always smaller than the size of the particle it makes. Therefore it would have been obvious to one of ordinary skill in the art to optimize the size of the orifice in Scheuermann's method because Thiesse teaches that the size of the nozzle

determines the size of the particle formed. Optimizing a result-effective parameter known in the art does not impart patentable distinction to an invention. See MPEP 2144.05 [R-5] II, in re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding **claim 15**, Scheuermann does not teach a nozzle size. However, Thiesse establishes nozzle size as a result effective parameter by teaching that the nozzle diameter is always smaller than the size of the particle it makes. Therefore it would have been obvious to one of ordinary skill in the art to optimize the size of the orifice in Scheuermann's method because Thiesse teaches that the size of the nozzle determines the size of the particle formed. Optimizing a result-effective parameter known in the art does not impart patentable distinction to an invention. See MPEP 2144.05 [R-5] II, in re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding **claim 19**, Scheuermann teaches that the reaction takes place in the presence of air (page 5 line 2), a dry gas.

Claims 4, 8-9, 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Scheuermann** in view of **Zimmerman** as applied to claim 1-2 above and further in view of Levendis et al. (US 5,269,980), henceforth **Levendis**.

Regarding **claim 4**, Scheuermann teaches does not teach drops *per se*. However, Levendis teaches that doing the condensation in individual drops produces particles of predictable shape and size (1:45-49). Therefore it would have been obvious to one of ordinary skill in the art to use drops in the method taught by Scheuermann because Levendis teaches that this produces particles of uniform shape and size.

Regarding **claims 8-9**, Scheuermann does not teach particle size. However, Levendis teaches that polymer powders of in predetermined sizes are needed for the study of materials and physics and the calibration of scientific instruments (1:12-19). Levendis teaches making 60 μm particles (5:30-31) to fill these needs. Therefore it would have been obvious to one of ordinary skill in the art to use Scheuermann's method to make particles sized within the claimed ranges because Levendis teaches doing so to facilitate scientific study and calibration.

Regarding **claim 16**, Scheuermann teaches does not teach drops *per se*. However, Levendis teaches that doing the condensation in individual drops produces particles of predictable shape and size (1:45-49). Therefore it would have been obvious to one of ordinary skill in the art to use drops in the method taught by Scheuermann because Levendis teaches that this produces particles of uniform shape and size.

Regarding **claim 20**, Scheuermann teaches that the condensation is carried out in the presence of a dry accompanying gas (p 5 ln 36-37).

Claims 6-7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Scheuermann** in view of **Zimmerman** as applied to claim 1 above and further in view of **Ciba-Geigy**.

Regarding **claim 6-7**, Scheuermann does not specify the pressure at condensation. However, Ciba-Geigy establishes pressure as a result effective parameter by teaching that pressure affects the dispersion and secondary agglomeration of the droplets (page 5 line 73-75). Therefore it would have been

obvious to one of ordinary skill in the art to optimize the size of the pressure in Scheuermann's method because Ciba-Geigy teaches that pressure determines the droplets' dispersion and secondary agglomeration. Optimizing a result-effective parameter known in the art does not impart patentable distinction to an invention. See MPEP 2144.05 [R-5] II, in re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding **claim 10**, Scheuermann teaches that the starting material (urea) is mixed with a solvent (solution of urea, page 3 line 4). Scheuermann does not teach keeping the mixture at a temperature between -40 °C and 30 °C. However, Ciba-Geigy teaches that dissolved urea can be stored at room temperature (8:54-58), which is 25 °C. Therefore, it would have been obvious to one of ordinary skill in the art to keep the dissolved urea in Scheuermann's method at within the claimed temperature range in order to achieve predictable results with a reasonable expectation of success.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Scheuermann** in view of **Thiesse** as applied to claim 3 above, and further in view of **Levendis**.

Regarding **claim 17**, Scheuermann teaches does not teach drops *per se*. However, Levendis teaches that doing the condensation in individual drops produces particles of predictable shape and size (col 1 ln 45-49). Therefore it would have been obvious to one of ordinary skill in the art to use drops in the method taught by Scheuermann because Levendis teaches that this produces particles of uniform shape and size.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Magali P. Théodore whose telephone number is (571) 270-3960. The examiner can normally be reached on Monday through Friday 9:00 a.m. to 6:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina A. Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Magali P. Théodore/
Examiner, Art Unit 1791

/Christina Johnson/

Supervisory Patent Examiner, Art Unit 1791